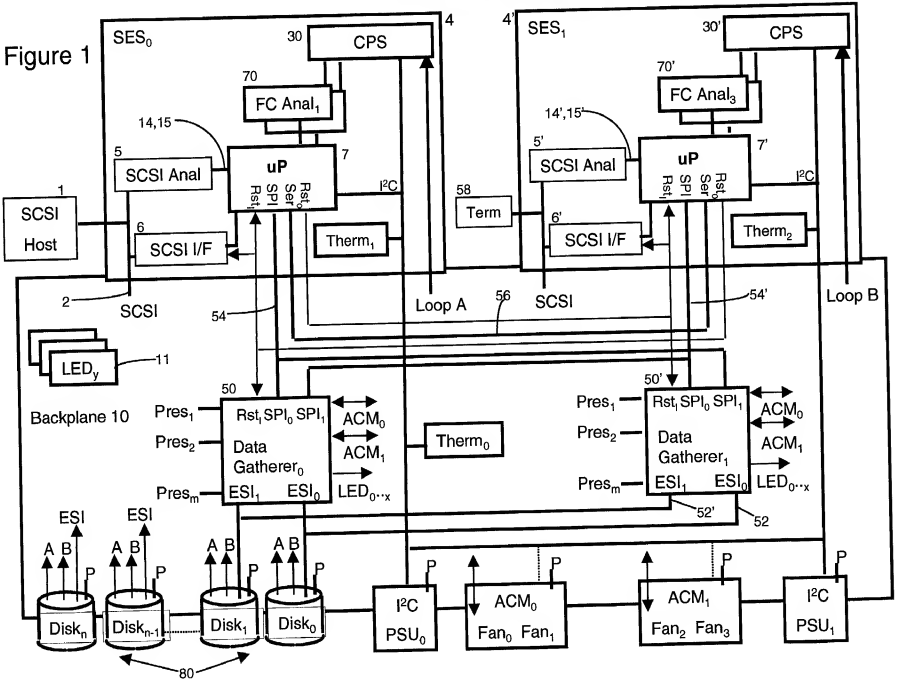
Figure 1


SES0
30
CPS
4
70
FC Anal1
14,15
5
SCSI Anal
uP
7
Rst1 SPI Rst0 Ser
I2C
1
SCSI Host
6
SCSI I/F
Therm1
2
SCSI
54
Loop A
56
SCSI
58
Term
SES1
4'
30'
CPS
70'
FC Anal3
14',15'
5'
SCSI Anal
uP
7'
6'
SCSI I/F
Therm2
54'
Loop B
LEDy
11
Backplane 10
50
Pres1
Pres2
Presm
Rst1 SPI0 SPI1
Data Gatherer0
ESI1 ESI0
ACM0
ACM1
LED0··x
Therm0
50'
Data Gatherer1
52'
52
ESI
A B P
Disk0
Disk1
Diskn-1
Diskn
80
I2C PSU0
ACM0 Fan0 Fan1
ACM1 Fan2 Fan3
I2C PSU1

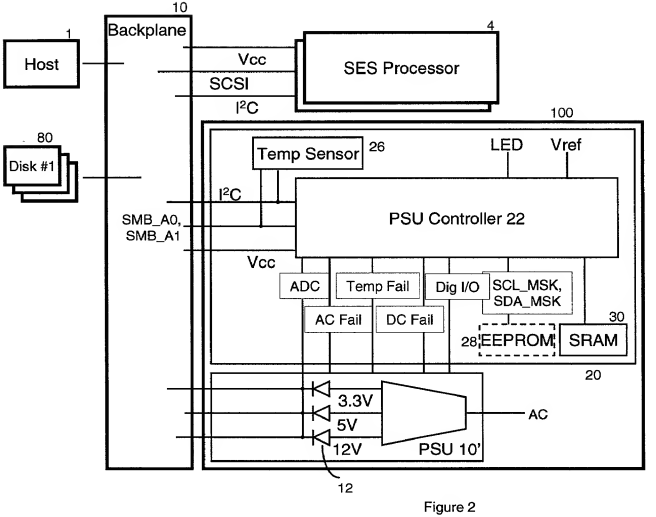

10
Backplane
1
Host
80
Disk #1
Vcc
SCSI
I²C
4
SES Processor
100
Temp Sensor
26
LED
Vref
I²C
SMB_A0,
SMB_A1
PSU Controller 22
Vcc
ADC
Temp Fail
Dig I/O
SCL_MSK,
SDA_MSK
AC Fail
DC Fail
30
28
EEPROM
SRAM
20
3.3V
5V
12V
AC
PSU 10'
12

Figure 2

Byte	Direction	Name	Description
Byte 0	R/W	PSU Summary 0	Power Supply Summary 0
Byte 1	R/W	PSU Summary 1	Power Supply Summary 1
Byte 2	R	PSU Status 0	Power Supply Status 0
Byte 3	R	Reserved	Reserved
Byte 4	R	3.3V Voltage Reading	Actual voltage on the 3.3V line
Byte 5	R	5V Voltage Reading	Actual voltage on the 5V line
Byte 6	R	12V Voltage Reading	Actual voltage on the 12V line
Byte 7	R	3.3V Current Reading	Actual current on the 3.3V line
Byte 8	R	5V Current Reading	Actual current on the 5V line
Byte 9	R	12V Current Reading	Actual current on the 12V line
Byte 10,11**	R	3.3V Resolution	3.3V Resolution (19.5mV)
Byte 12,13**	R	5V Resolution	5V Resolution (24.5mV)
Byte 14,15**	R	12V Resolution	12V Resolution (58.6mV)
Byte 16,17**	R	3.3A Resolution	3.3V current Resolution (1.17mA)
Byte 18,19**	R	5A Resolution	5V current Resolution (136.7mA)
Byte 20,21**	R	12A Resolution	12V current Resolution (195mA)
Byte 22** ... Byte 37	R	PSU Part Number	PSU part number also on label of PSU
Byte 38* ... Byte 53	R	PSU Serial Number	PSU serial number also on bar code label
Byte 54 Byte 55	R	Build Number	A number directly related to the revision of the firmware.

* Permanent data stored in Flash from manufacturing

** Permanent data from Firmware build

Table1

Name	Type	Purpose
SMB_A0, SMB_A1	2 digital inputs	These are used to configure the 2 wire serial address for the microcontroller
Yellow LED	1 digital LED output	Used to control the Fault LED
3.3V, 5V, 12V Monitor IC 3.3V, 5V, 12, Imonitor IC	6 analog to digital converter (ADC) inputs	These are used to measure the current and the voltages on the 3.3, 5 and 12 volt lines
AC FAIL / AC SHUTDOWN	1 digital interrupt pin	Used to detect AC fail conditions
SMB_SCL, SMB_SDA	2 dedicated digital I/O lines with serial hardware	Used for the 2 wire I^2C serial bus interface
Temp Fail	1 digital input/interrupt	Used to detect a PSU temperature failure
3.3V, 5V, 12V Fail 3.3V, 5V, 12, IFail	6 digital inputs	Used to detect current and voltage failure on the 3.3, 5, and 12 v lines
Vref	1 analog reference voltage	Used to determine the voltages and currents measured on the ADC.
SCL_MSK, SDA_MSK	2 digital I/O lines	Used to talk to an EEPROM if a Mask part is used. The EEPROM stores the Part No. Serial No. and the PSU revision.

Table 2

Command	Command Byte	Data Length	Data Description
Status	0x01	2 bytes	Status Data to be implemented by the PSU controller
Error Priority	0x02	11 bytes	The error led information for each error in the PSU controller ***Note 1***
Led Pattern	0x03	8 integers (16 bytes)	The pattern that each led priority is allocated ***Note 1***
Scaling Factor	0x04	8 integers (16 bytes)	The scaling factor associated with each analog measurement. ***Note 1***
Part Number	0x05	16 bytes	The PSU controller board part number ***Note 1***
Serial Number	0x06	16 bytes	The PSU controller board serial Number ***Note 1***
Reboot	0xbb	0 bytes	This will cause the PSU controller to restart

Note 1 – Without an EEPROM, changes to this information are received and stored in RAM, so everytime the PSU controller is reset this information has to be updated. With an EEPROM, this information is written out to the EEPROM and stored permanently.

Table 7

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Led Status and Request			Enable Auto Mode	Reset AC Fail Latched	Rsvd	Rsvd	Rsvd
Rsvd	Rsvd	Rsvd	Rsvd	Rsvd	Power Up Ack	Temp Fail Latched	Rsvd

Table 8